

## QUERY CONTROL FORM

RTIS USE ONLY

Application No. 10/081,976  
Examiner-GAU LEE-2874

Prepared by NPB  
Date 7/30/04  
No. of queries 1

Tracking Number	05969324
Week Date	6/2/04
E(1FW)	

## JACKET

- |                      |                        |                    |                |
|----------------------|------------------------|--------------------|----------------|
| a. Serial No.        | f. Foreign Priority    | k. Print Claim(s)  | p. PTO-1449    |
| b. Applicant(s)      | g. Disclaimer          | l. Print Fig.      | q. PTOL-85b    |
| c. Continuing Data   | h. Microfiche Appendix | m. Searched Column | r. Abstract    |
| d. PCT               | i. Title               | n. PTO-270/328     | s. Sheets/Figs |
| e. Domestic Priority | j. Claims Allowed      | o. PTO-892         | t. Other       |

## SPECIFICATION

- a. Page Missing
- b. Text Continuity
- c. Holes through Data
- d. Other Missing Text
- e. Illegible Text
- f. Duplicate Text
- g. Brief Description
- h. Sequence Listing
- i. Appendix
- j. Amendments
- k. Other

## CLAIMS

- a. Claim(s) Missing
- b. Improper Dependency
- c. Duplicate Numbers
- d. Incorrect Numbering
- e. Index Disagrees
- f. Punctuation
- g. Amendments
- h. Bracketing
- i. Missing Text
- j. Duplicate Text
- k. Other

## MESSAGE

End of Original claims 23 and 33 are cut-OFF - data missing. (please advise/provide missing data - see attached).

Thank you

initials *AMH.*

## RESPONSE

initials

<sup>7</sup>  
~~14~~. (original) The waveguide structure of claim <sup>2</sup>~~8~~, wherein a taper angle of the interconnection structure is no greater than 0.4 degrees.

<sup>8</sup>  
~~15~~. (original) The waveguide structure of claim <sup>2</sup>~~8~~, wherein the EO polymer waveguide and the passive polymer waveguide are formed as rib structures.

<sup>9</sup>  
~~16~~. (original) The waveguide structure of claim <sup>2</sup>~~8~~, wherein the EO polymer waveguide has a higher refractive index than the passive polymer waveguide.

<sup>10</sup>  
~~17~~. (original) The waveguide structure of claim <sup>2</sup>~~8~~, wherein the passive polymer waveguide has a larger mode profile than the EO polymer waveguide.

~~18-19~~. (canceled)

<sup>11</sup>  
~~20~~. (original) The waveguide structure of claim <sup>2</sup>~~8~~, wherein the passive polymer waveguide comprises a fluorinated polymer.

<sup>12</sup>  
~~21~~. (original) The waveguide structure of claim <sup>2</sup>~~8~~, wherein the passive polymer waveguide comprises a fluorinated acrylate.

<sup>13</sup>  
~~22~~. (new) A method of operably interconnecting an electrooptic (EO) polymer waveguide and a passive polymer waveguide, comprising:

providing a tapered electrooptic (EO) polymer waveguide interconnection structure between an EO polymer waveguide and a passive polymer waveguide, the passive polymer waveguide including a fluorinated acrylate.

<sup>14</sup>  
~~23~~. (new) A waveguide structure, comprising:  
an electrooptic (EO) polymer waveguide;

a passive polymer waveguide including a fluorinated acrylate; and

a tapered EO polymer waveguide interconnection structure between the EO polymer

<sup>15</sup>  
~~24~~. (new) The waveguide structure of claim ~~23~~<sup>14</sup>, wherein the EO polymer waveguide and the passive polymer waveguide provide single mode propagation, and the interconnection structure provides a coupling between the two waveguides without higher order mode coupling.

<sup>16</sup>  
~~25~~. (new) The waveguide structure of claim ~~23~~<sup>14</sup>, wherein an interconnection loss associated with the interconnection structure is less than 0.4 dB.

<sup>17</sup>  
~~26~~. (new) The waveguide structure of claim ~~23~~<sup>14</sup>, wherein the interconnection structure is vertically tapered.

<sup>18</sup>  
~~27~~. (new) The waveguide structure of claim ~~23~~<sup>14</sup>, wherein a taper length of the interconnection structure is 300  $\mu\text{m}$  or more.

<sup>19</sup>  
~~28~~. (new) The waveguide structure of claim ~~23~~<sup>14</sup>, wherein a taper angle of the interconnection structure is no greater than 0.4 degrees.

<sup>20</sup>  
~~29~~. (new) The waveguide structure of claim ~~23~~<sup>14</sup>, wherein the EO polymer waveguide and the passive polymer waveguide are formed as rib structures.

<sup>21</sup>  
~~30~~. (new) The waveguide structure of claim ~~23~~<sup>14</sup>, wherein the EO polymer waveguide has a higher refractive index than the passive polymer waveguide.

<sup>22</sup>  
~~31~~. (new) The waveguide structure of claim ~~23~~<sup>14</sup>, wherein the passive polymer waveguide has a larger mode profile than the EO polymer waveguide.

<sup>23</sup>  
~~32~~. (new) The waveguide structure of claim ~~23~~<sup>14</sup>, wherein the EO polymer waveguide comprises a nonlinear chromophore.

<sup>24</sup>  
~~33~~. (new) The waveguide structure of claim ~~32~~<sup>23</sup>, wherein the nonlinear chromophore includes a triarylmethane acceptor and a phenyltetramethine bridge.